

Please amend claims 7-16 as follows:

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7. A method for optimizing the utilization of connecting sections in systems in which information is transmitted in data packets, the method comprising the steps of:

providing a first scheduler for scheduling transmission of the data packets by which corresponding connection parameters, which are representative of lower transmission rates of the data packets, are guaranteed during a transmission process;

providing a queue identifier which is stored in a packet header, said queue identifier including information related to a transmission rate of an associated data packet; and

providing a second scheduler for scheduling transmission of the data packets to precede the first scheduler depending on the queue identifier, wherein corresponding connection parameters which are representative of upper transmission rates of the data packets are limited during the transmission process.

8. A method as claimed in claim 7, wherein the first scheduler employs a weighted fair queueing scheduling algorithm.

9. A method as claimed in claim 7, further comprising the step of:

providing an input device which contains a table which includes current storage levels of buffer stores for storing the data packets.

10. A method as claimed in claim 8, further comprising the step of:

providing an input device which contains a table which includes current storage levels of buffer stores for storing the data packets and generates a control signal based on the data packet identifier and the current storage levels for controlling the first and second schedulers.

11. A method as claimed in claim 9, further comprising the step of:

feeding back a result of reading out the data packets from at least one of the buffer stores representative of the current storage levels of the buffer stores to the input device.

12. A method as claimed in claim 11, further comprising the step of :

influencing the operation of the second scheduler based on the result fed back to the input device.

13. A method as claimed in claim 7, further comprising the step of entering the queue identifier while the connection is being set up.

14. A method as claimed in claim 8, further comprising the step of entering the queue identifier while the connection is being set up.

15. A method as claimed in claim 7, wherein the data packets are ATM cells.

16. A method as claimed in claim 8, wherein the data packets are ATM cells.

Please add new claims 17-23 as follows:

17. A method as claimed in claim 7, further comprising the step of controlling the operation of the first scheduler dependent on a result of the second scheduler.

18. A method for transmission of data packets of a connection utilizing a system having a first scheduler for scheduling a lower transmission rate for the data packets and a second scheduler for scheduling an upper transmission rate for the data packets, comprising the steps of:

deciding whether to limit a rate for a particular connection;

supplying, in response to the decision not to limit the rate of the particular connection, a lower limit control signal to the first scheduler such that the lower limit control signal bypasses the second scheduler;

limiting, by action of the first scheduler, the lower transmission rate of the particular connection in response to the lower limit control signal;

supplying, in response to the decision to limit cell rate for the particular connection, an upper limit control signal to the second scheduler;

limiting, by action of the second scheduler, the upper transmission rate of the particular connection in response to the upper limit control signal;

generating, by the second scheduler, an initial planning control signal that in part represents a scheduling of the second scheduler; and

setting the lower transmission rate of the particular connection by the first scheduler in response to the initial planning control signal generated by the second scheduler.

19. The method of claim 15, further comprising the step of feeding back a result of a transmitted data packet to assist in the determination whether the transmission rate of a later data packet should be limited.

20. The method of claim 16, further comprising the step of storing a table indicating which connections require limiting during transmission.

21. An apparatus for transmission of data packets of a connection, comprising:

a first scheduler that limits a lower transmission rate for the data packets when it is desired not to limit a transmission rate of the data packets;

a second scheduler that limits an upper transmission rate for the data packets when it is desired to limit the transmission rate of the data packets, generates an

initial planning control signal that takes into account scheduling in the second scheduler and supplies the first scheduler with the initial planning control signal, wherein the first scheduler limits the lower transmission rate in accordance with the initial planning control signal when the transmission rate of the data packets are to be limited.

22. The apparatus of claim 18, further comprising an output device that feeds back a result of transmitting the data packets indicative of an actual output rate.

23. The apparatus of claim 19, further comprising an input device for comparing the feed back result to data and adjusting operation of the first scheduler and the second scheduler to account for the actual output rate of the data packets.